Abstract: This paper provides insights into a new landslide hazards project which is part of a national research program on safe and sustainable transport in Germany funded by the Federal Ministry of Transport and Digital Infrastructure (BMVI). Here we report on a work in progress and present selected results of a pilot study conducted prior to the launch of the research program in 2016. The main goal of the landslide hazards project is to assess the future landslide hazard potential for the federal transport system under the influence of climate change. A federal road-related pilot study with focus on developing an approach to this type of hazard assessment was a first step in this direction. The developed approach is based upon a Geographic Information System (GIS) as mapping tool to combine a landslide susceptibility map with spatial datasets of regional climate change projections. Here we present the basic framework of this approach only, and provide information on landslide activity and climate change. This information refers to findings from three example landslide sites in Germany. The purpose of this paper is to introduce these landslide projects of German transport research against the backdrop of the existing national strategy of climate change adaptation.

Abstract: Landslides are one of the most relevant geomorphological hazards in Portugal, by the high levels of people affected, destruction of assets and disruption of economic and social activities. Regarding the Portuguese territorial land use planning and emergency management, regulation, practice, prevention and risk management have been promoted in different ways. In Portugal, the areas susceptible to landslides are included in the 'National Ecological Reserve', which is a public utility restriction legal figure that rules the land use planning at the municipal level. In addition, the Municipal Emergency Plans include landslide susceptibility maps that are combined with the map of the exposed elements, allowing the assessment of exposure to landslides. This study is applied to the Loures municipality located to the north of Lisbon. In this municipality 621 landslides registered in a landslide inventory (rotational slides, deep-seated translational slides and shallow translational slides) that affected 1,469,577 m^2 (0.87 %) of the Loures territory. The final landslide susceptibility map shows that in Loures municipality 1,347 ha are associated to a Very high landslide susceptibility and 2,372 ha to High landslide susceptibility, which corresponds both to 22.1 % of the entire municipality, and constitutes the larger fraction of the National Ecological Reserve, related to landslides. These areas do not present geomorphological and geotechnical suitability for building structures or infrastructures. From the civil protection and emergency management point of views 34 classes of exposed elements were identified in the municipality, with point, linear and polygonal representations. The elements at risk located in the Very High or High landslide susceptibility classes were summarized and correspond to: high voltage poles; wind turbines; transmission/reception antennas; industrial areas; water tanks; silo; gas station/tank; service area; buildings of educational institutions; worship buildings; buildings of electricity facilities; regular buildings; gas pipeline; motorways; national roads; and municipal roads.

Abstract: Modern Society needs interactive public discussion to provide an effective way of focusing on hydrological hazards and their consequences. Embracing a holistic Earth system Science approach, we experiment since 2004 different stimulating educational/communicative model which emotionally involves the participants to raise awareness on the social dimension of the disaster hydrogeological risk reduction, pointing out that human behavior is the crucial factor in the degree of vulnerability and the likelihood of disasters taking place. The implementation of strategies for risk mitigation must include educational aspects, as well as economical and societal ones. Education is the bridge between knowledge and understanding and the key to raise risk perception. Children's involvement might trigger a chain reaction that reinforce and spread the culture of risk. No matter how heavy was the rain that hit our land in the past and recent seasons we still are not prepared. If on one hand we need to fight against worsening Global Warming that trigger extreme meteorological events, we should also work on sustainable land use and promote landscape preservation. Since science can work on improving knowledge of phenomena, technology can provide modern tool to reduce the impact of disasters, children and adults education is the flywheel to provide the change. We present here two cases selected among the wide range of educational activities that we have tested and on which more than 22.000 students and adults have participated within a period of 12 years. They include learn-by-playing, hands-on, emotional-learning activities, open questions seminars within several projects, learning paths, curiosity-driven approaches, special venues and science outreach.

Abstract: More room for landslide control means more space for potential landslide control out man made impacts that cause land slope instability, more space for torrent, more space for water and sediment storages, less impact on the slope stability and higher security for the peoples. We should change paradigm of space planning and development, especially in countries in